

Evergreen SpectraTM Processor Upgrade

AMD[®] K6[®]-2 Version

Frequently Asked Questions (FAQ)

Version 4.1, 9/29/99



Frequently Asked Questions

Compatibility

Q. How do I determine if my system is compatible?

- A. The best way to determine compatibility is to analyze the components that make up your system. Having this information when you talk to our pre-sales team provides what they need to explain your upgrade options. You can find this system information several ways. Check the documentation that shipped with your system, or use a third party software program, such as SiSoft's Sandra available at <http://www6.zdnet.com/cgi-bin/tehis/swlib/hotfiles/search.html>. Additionally, Evergreen has a program that collects system information called INSTALL. This program is free and can be downloaded from the Spectra support page at <http://www.evertech.com/tsupport.asp>. Attach or drag and drop the following files that the program creates into an email message and send to sales@evertech.com. Each email message should include the files from a single machine. Do not include files from several machines in a single email message, since this will confuse the ID process. The files to include are:

- 1) *.ETB (flash bios image, runtime bios image)
- 2) Register.txt (customer and system information)
- 3) Log.dat (shows info for each time program was run)
- 4) PCIconfg.txt (PCI bus scan)
- 5) Systest.dat (logfile for system test errors)
- 6) *.rec (original BIOS image)

BIOS information is an important component of your system configuration. You can find the BIOS information on the first screen that appears during your computer's boot-up process. This information is Vital to determining your compatibility.

If possible, include any service tag, serial number, or other vendor ID numbers found on the system

Here are some examples of vendor IDs that help Evergreen determine what upgrades are right for your computer:

- Acers have a DS.##.###.### number on the side of the outside case.
- AST's have a 50####-### number on the back of the machine.
- Compaq's have a RomPaq version that is displayed in the systems BIOS. You can find the RomPaq by hitting F10 at startup and looking in the system information screen. This is the most accurate way of determining compatibility.
- DELL's use the model name written on the case in combination with the BIOS String.
- Gateway's use the bios string listed during the boot process. This is usually a 1.00.##.#### number.
- IBM's use a machine model and a #####-### type number, usually located on the back of the system.
- Packard Bell's use the FCC number or the serial number. These may be found on the back of the machine or as part of the system documentation.

Q. What systems work with the Evergreen Spectra upgrade?

- A. The Evergreen Spectra supports most single processor 75 MHz and higher speed Pentium® processor-based systems.

Q. Why can't the Spectra be used for 60 and 66 MHz systems?

- A. The 60 and 66 MHz systems use a different socket type. Only 75 MHz and higher speed Pentium processor-based desktop systems have a compatible socket.

Q. Is the Spectra Socket 5, Socket 7 and Super7™ compatible?

- A. Yes. The majority of the installed base utilizes the Socket 5 and 7 platforms. The Spectra also supports motherboards based on the newer Super7 platform.

Q. What does Socket 7 and Super7 mean?

- A. Socket 7 systems support both 3.3-3.6 volt, as well as the 2.8 volt requirements of newer Pentium processors. The Spectra uses 3.3 to 3.6 volts, which is supported by all Pentium processor-based systems.

The Super7 is an enhanced Socket 7 platform that adds support for AGP (Accelerated Graphics Port) and the high-performance, industry-standard 100 MHz system bus. The 100 MHz bus can access level 2 cache and main memory up to 50% faster, significantly increasing system performance.

Q. Why can't I just buy an Intel® or other MMX™ chip and plug it into my system?

- A. Intel and other MMX processors are not always compatible with the BIOS and/or motherboard of older systems. Evergreen solves this with the Spectra by including a compatibility adapter and BIOS update software for many popular systems.

Q. If I already have an AMD-K6 or AMD-K5™ in my system, why should I buy the Evergreen Spectra instead of the AMD-K6-2 processor itself?

- A. Many older systems and motherboards do not provide BIOS and voltage support for the K6-2. The Evergreen Spectra provides both BIOS and voltage support, so you can upgrade older systems to the latest processor technology.

Q: Why should I buy an Evergreen Spectra when I can buy a new motherboard and processor for the same price as the Spectra?

- A: A motherboard replacement is more time consuming and can be technically difficult for the average user. Furthermore, a motherboard swap may require reinstallation of the operating system and application software, which the Spectra does not require. In addition, many brand-named systems have proprietary motherboards and therefore, cannot be upgraded.

Q. Will it work with my software?

- A. Yes. The Evergreen Spectra is compatible with PC software. Furthermore, the CPU used in the Spectra is fully certified by Microsoft as Windows®-compatible.

Q. Can the Spectra work in multiprocessor systems?

- A. No. It may work as a stand-alone CPU only in these systems. However, the Spectra does not support dual-processing.

Q. Which microprocessor is used in the Spectra?

- A. The Evergreen Spectra utilizes the sixth generation AMD-K6-2 microprocessor. For more information on this processor, visit <http://www.amd.com>.

Q. Will it fit in my system?

- A. The Evergreen Spectra fits most desktop and tower systems. The physical dimensions are:
- Width: 2.08", 52.8mm
 - Length: 2.57", 65.3mm
 - Height: 1.66", 42.2 mm

Q. Can the Evergreen upgrade be used for my portable?

- A. No. The Evergreen Spectra is for desktops only.

Q. Can I do the upgrade myself?

- A. Yes. The Evergreen Spectra is designed to be installed by PC users. The installation guide contains easy-to-follow, illustrated, step-by-step instructions. If you prefer, a qualified technician at a computer dealer near you can install the Evergreen upgrade.

Q. How do I remove the original Pentium processor?

- A. Most Pentium processor-based systems have Zero-Insertion-Force (ZIF) sockets with an easy-to-use lever that allows you to effortlessly remove the Pentium processor. In the few instances in which a system does not have a ZIF socket, Evergreen technical support can instruct you how to remove the original processor.

BIOS

Q. What is the INSTALL software?

- A. The INSTALL software is a tool that queries your system to determine whether or not a BIOS (Basic Input Output System) upgrade is required to run the Spectra. INSTALL also steps you through the BIOS update process should you need to upgrade to a newer BIOS. In addition, INSTALL provides before and after performance benchmarks so you can compare your performance increase after you install the Spectra.

Q. How and why does the Spectra upgrade my BIOS?

- A. The BIOS's in many older systems do not support the newer CPU architecture of the Evergreen Spectra. Therefore, Evergreen offers BIOS updates to support selected older systems and motherboards. The BIOS updates are included on the CD and should only be used on systems where the INSTALL software recommends its use.

Q. Is the BIOS upgrade "Plug-and-Play"?

- A. Since the Spectra upgrades only your system's existing BIOS, this depends whether your BIOS already supports plug-and-play (PNP). Evergreen's BIOS upgrade will not change a non-PNP BIOS into PNP BIOS. .

Q. Can I restore my original BIOS if I have problems?

- A. Yes. Evergreen's INSTALL software makes a backup copy of the original BIOS or prompts you to make a backup. A restore option is also included with the software.

Q. What if I get a BIOS update from my PC manufacturer after I install the Spectra?

- A. The Evergreen BIOS update is installed to enhance system performance and recognize the Evergreen processor upgrade. You should not install the new manufacturer's BIOS without talking to our technical support group since doing so will overwrite the Evergreen BIOS update.

Performance

Q. Does the Spectra support 3DNow!™ technology?

A. Yes, the AMD-K6-2 is the industry's first processor that supports this new technology.

Q. What are the benefits of 3DNow! technology?

A. 3DNow! significantly increases the floating-point performance of three-dimensional intensive graphics and multimedia programs. By working with today's 3D graphic accelerators, 3DNow! offers superior 3D performance, lifelike images, graphics, video, and sound, as well as an enhanced Internet experience. For more information on the 3DNow! technology, please visit <http://www.amd.com>.

Q. Does the Spectra with 3DNow! technology replace my 3D graphics accelerator card?

A. No, the Evergreen processor upgrade works with your 3D card and applications to render superior 3D performance.

Q. What types of applications use 3DNow! technology?

A. Many types of software, including games, education, and business productivity software utilize this new technology. For the latest list of products optimized for 3DNow!, please visit www.amd.com/products/cpg/k623d/optimized.html.

Q. Does the Spectra also support MMX?

A. Yes, the Evergreen Spectra runs software enabled for MMX instructions.

Q. What is MMX?

A. MMX stands for Math Matrix Extensions commonly called multimedia instructions. This feature has been added to processors to improve performance on multimedia software such as games, graphics, sound and video applications.

Q. What is the difference between 3DNow! technology and MMX technology?

A. The benefit of MMX is improved integer-based multimedia performance. However, it does not enhance floating point intensive 3D applications. 3DNow! includes 21 new instructions to address the needs of emerging 3D applications.

Q. The Spectra is 3DNow! and MMX instruction compatible. Will this make all software run faster or just software designed specifically for 3DNow! and MMX?

A. The Spectra boosts processor performance for all software including software enabled for 3DNow! and MMX instructions.

Q. What are the recommended system speeds for upgrading with the Spectra?

A. Most 75 to 233 MHz Pentium processor-based systems can be upgraded to the Spectra for a significant performance boost on all software.

Q. Will the Spectra run at full speed in my system?

A. The Spectra will run at full speed in all systems that support a 66 MHz bus speed. Although this is the recommended bus speed, the Spectra will work with slower bus speeds but may not achieve full performance.

Q. What performance improvement can I expect?

A. The Spectra performs like a new multimedia PC in older Pentium processor-based systems. For specific benchmarks, visit <http://www.everttech.com/products/upgrades/> or read the Evergreen Spectra White Paper.

Q. After installing the Spectra upgrade, the INSTALL disk displays a Mediastones benchmark. What is its purpose? How was it created?

A. Mediastones is a performance and diagnostic tool created by Evergreen software engineers. Its purpose is to test the MMX instruction set of the Evergreen Spectra to show proper functionality and the optimum performance achievable on software instructions in MMX-enabled software.

The Spectra INSTALL software uses the Mediastones test to display the result and to compare the performance of the Spectra to the original CPU in the system.

Ordering

Q. What is the warranty for the Evergreen Spectra?

A. Lifetime. For specific warranty information visit www.evertech.com/Spectra/Spectrawar.asp.

Q. How much does it cost? Where can I buy it?

A. Contact Evergreen at 541.757.0934 or visit our web site at <http://www.evertech.com> for ordering information.

Q. How do I contact the Customer Care Center?

A. Evergreen offers technical support through our web site, email, fax, and telephone. We recommend using Email for non-critical issues.

Home Page: www.evertech.com/tsupport.asp

Phone: 541.757.7341

Email: techsupport@evertech.com

Fax: 541.752.9851